SHIP: USS LASALLE (AGF-3) ITEM NO: 261-11-003

COAR: 16-537 PCN: EB14-2391

CMP: NONE

SURVEYOR: BETTS

#### 1. SCOPE:

1.1 Title: Fuel Oil Piping Ultrasonic Inspection; accomplish

- 1.2 Location of Work:
  - 1.2.1 Boat and Vehicle Fueling Station (2-151-1-JG)
  - 1.2.2 Crew Living Space (2-160-1-L)
- 1.3 Identification:
  - 1.3.1 Quantity (50 Feet) Fuel Oil System Piping, from X-Conn Valve 2-151-1 to Bulkhead Penetration at Frame 176

## 2. <u>REFERENCES</u>:

- a. Standard Items
- b. T9074-AS-GIB-010/271, Requirements for Nondestructive Testing Methods
- c. 511-1775134 Rev L, Arrgt. of F. O. Fill & Overflow Piping 3rd Deck & Above
- d. S9086-RK-STM-010/CH-505, Piping Systems
- e. MIL-STD-777, Schedule of Piping, Valves, Fittings, and Associated Piping Components for Naval Surface Ships
- f. 810-4714432 Rev. G, NNSY Standard Drawing, Std Pipe Hangers Fabrication Dets & Instl Instr (Non-Nuc Constr)
- g. 541-6686982 Rev A, Fuel Oil Piping, Flushing Procedure For Surface Ships

#### 3. REQUIREMENTS:

- (V) (G) "ULTRASONIC TEST"
- 3.1 Accomplish ultrasonic tests on the fuel oil piping listed in 1.3 to determine the remaining wall thickness in accordance with 2.b, using 2.c for guidance.

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- 3.1.1 Ultrasonic equipment and inspection techniques shall be in accordance with Paragraphs 505-1.3.4. and 505-1.3.5. of 2.d.
- 3.1.2 Prepare the piping to be inspected by removing rust, rust scale and corrosion products to produce a clean moderately bright and smooth metal surface.
- 3.1.3 The ultrasonic measurement locations shall be spaced throughout the designated piping boundaries and specifically include the following:
  - 3.1.3.1 Areas adjacent to welds.
- $3.1.3.2\,$  Bends, with particular emphasis at the outside radius.
  - 3.1.3.3 Low points.
  - 3.1.3.4 Other areas where piping deterioration is suspected.
- 3.2 Submit four legible copies of a report, including a sketch, listing results of the requirements of 3.1 to the SUPERVISOR.
- 3.3 Remove and install new 20 feet of fuel oil piping and associated fittings shown to be below minimum allowable wall thickness in the report of 3.2, as designated by the SUPERVISOR.
  - 3.3.1 Remove each associated hanger assembly.
- 3.3.2 Restore piping flange mating surfaces exposed by disassembly of piping system. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be accomplished by hand tools. Take precautions to maintain phonographic finish on flanges that have it.
- 3.3.3 Install new fuel oil piping system in the same location and configuration as that removed in 3.3 using material conforming to 2.e, including Category and Group E-3.
- 3.3.4 Install new hangers to support the new piping and prevent vibration in accordance with 2.f in place of those removed in 3.3.3.
- 3.4 Accomplish the requirements of 009-12 of 2.a, including Table One, Column A, Lines One through 10 and Table 3, Column A, Lines One through 7.
- (V) (G) "FLUSHING"
- $3.5\,$  Flush the new and disturbed fuel oil system piping in accordance with 2.g.

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- 3.6 Accomplish the requirements of 009-71 of 2.a for the new fuel oil system piping, using clean, dry air at 50 PSIG.
- $3.7\,$  Accomplish the requirements of 009--32 of 2.a for the new and disturbed normally painted surfaces.

## (V) (G) "OPERATIONAL TEST"

- 3.8 Test the new and disturbed fuel oil piping system under operating conditions. Allowable leakage: None.
- 3.9 Install new aluminized cloth spray shields on fuel oil piping and valve flanges and components in accordance with ASTM F1138.

# 4. <u>NOTES</u>:

4.1 None.

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# 5. <u>GOVERNMENT</u> <u>FURNISHED</u> <u>MATERIAL</u> <u>(GFM):</u>

	<u>QTY</u>	<u>UI</u>	NAME OF PART/ DESCRIPTION	PIECE NO.	REF.	NATIONAL STOCK NO.	PARA NO.
5.1	PUSH MATERIAL:						
1.	None.						
5.2	KITTED MATERIAL:						
1.	None.						
5.3	LLTM:						
1.	20	Ft	8 Inch IPS Pipe, Steel Sch 40-DO NOT ORDER- See SSP 540-02			9C4710003475110	3.3
2.	2	Ea	8 Inch IPS Elbow, Steel 90 Degree, BW-DO NOT ORDER-See SSP 540-02			9C4730006406018	3.3
3.	10	Ea	8 Inch IPS Split-Type Backing Rings, Steel DO NOT ORDER-See SSP 540-02			9C4730LLL870632	3.3
4.	One	Ea	8 Inch IPS Deck Sleeve Steel-DO NOT ORDER-See SSP 540-02				3.3
5.	6	Ea	8 Inch IPS Hanger Assy, Type 2, Steel-DO NOT ORDER-See SSP 540-02			9C5340LLL990079	3.3
6.	One	Ea	8 Inch IPS Tee, Steel, BW-DO NOT ORDER-See SSP 540-02			9C4730005295090	3.3